

RIVERS AND FLOODS

[River and Flood Division, MERRILL BERNARD in charge]

By THOMAS S. SOUTHWICK

Precipitation during January was above normal over most of the country, but durations and intensities were not sufficient to cause other than minor flooding. This condition was changed abruptly on the 30th by widespread precipitation which inaugurated a flood situation that extended into February.

The west fork of the White River in Indiana went slightly above flood stage on the 7th and the Rock River in Illinois on the 10th. High temperatures—the week ending January 10 being one of the warmest January weeks of record—contributed an increment of melted snow to the rains causing these overflows.

Heavy rains over the Southeastern States on January 12–13 caused flood stages to be exceeded on the Tombigbee and Pearl Rivers. The Pearl River at Jackson, Miss., was above flood stage from January 17 to 25. Damage estimated at \$1,000 occurred at Pearl River, La., due to the suspension of lumbering operations.

A slight, flashy rise occurred on the Sulphur River at Ringo Crossing, Tex., due to local rains on January 23–24.

Table of flood stages during January 1939

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
French Broad: Asheville, N. C.....	<i>Feet</i> 6	30	30	6.6	<i>Feet</i> 30
EAST GULF OF MEXICO DRAINAGE					
Tombigbee: Lock No. 3, Ala.....	33	15	20	38.4	18
Pearl:					
Jackson, Miss.....	18	17	25	20.5	21
Pearl River, La.....	12	20	22	12.2	21
MISSISSIPPI SYSTEM					
<i>Upper Mississippi Basin</i>					
Rock: Moline, Ill.....	10	10	10	10.3	10

Table of flood stages during January 1939—Continued

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM—continued					
Ohio Basin					
Tygart:	Feet				Feet
Dailey, W. Va.-----	11	30	(1)	13.4	31
Elkins, W. Va.-----	14	31	(1)	14.8	31
Belington, W. Va.-----	14	31	(1)	15.6	31
Midvale, W. Va.-----	11	30	31	12.3	30
Philippi, W. Va.-----	20	31	31	20.0	31
Monongahela: Lock No. 7, Greensboro, Pa.	30	31	(1)	31.6	31
Walhonding: Walhonding, Ohio-----	8	31	(1)		
Little Sandy: Grayson, Ky.-----	15	30	(1)		
Kentucky: Lock No. 9, Ky.-----	20	30	(1)	21.3	30
Barren: Bowling Green, Ky.-----	20	30	(1)		
Green:					
Munfordville, Ky.-----	28	30	(1)		
Lock No. 6, Brownsville, Ky.-----	28	30	(1)		
Lock No. 4, Woodbury, Ky.-----	33	30	(1)		
West Fork of White:					
Anderson, Ind.-----	10	31	(1)		
Elliston, Ind.-----	18	30	(1)		
Edwardsport, Ind.-----	12	7	8	13.0	8
White Basin					
Black: Black Rock, Ark.-----	14	30	(1)	16.9	31
Lower Mississippi Basin					
St. Francis: Fisk, Mo.-----	20	31	(1)		
Red Basin					
Sulphur: Ringo Crossing, Tex.-----	20	24	24	21.0	24

1 Continued into next month.

The month closed with stages rising throughout the Ohio Valley and the Atlantic coast region when a disturbance, which was centered over Texas the morning of the 28th, traversed the Ohio Valley attended by widespread and heavy rainfall. Except for a few headwater stations where crests were attained on the 30th and 31st, the rises continued and culminated in the floods of February. Discussion of the rises of January 30 and 31 will be included in the report for February.

WEATHER ON THE ATLANTIC AND PACIFIC OCEANS

[The Marine Division, WILLIS E. HURD acting in charge]

NORTH ATLANTIC OCEAN, JANUARY 1939

By H. C. HUNTER

Atmospheric pressure.—Most of the North Atlantic had pressure averaging below normal. The greatest deficiency was found over waters near Ireland and thence southwestward toward the Azores. In contrast, the north-central and northeastern areas had pressure averaging above the normal, the mean at Reykjavik, Iceland, being 0.34 inch higher.

The month was remarkable for fluctuations of large amount in the pressure readings, often occurring very rapidly. The lowest marks at Horta and Lisbon, 29.30 and 29.09 inches, respectively, are notably low for those localities. At Halifax, from the 22d to 25th, inclusive, the 8:30 a. m. readings were as follows: 30.00, 29.00, 30.12, and 29.12 inches. Pressure at Reykjavik was mainly below normal from the 14th to the 22d, but almost constantly much above normal during the remainder of the month. In the early portion of the month the center of the Icelandic low was shifted to southeastward or southward of its ordinary location, but during the final fortnight usually to westward.

The extremes of the month, given in reports that vessels have sent to this office, are 30.60 and 28.02 inches. The high mark was noted during the forenoon of the 28th, about 100 miles to northeastward of Cape Henry, by the American tank steamer *John D. Archbold*. There was remarkably low pressure to westward of Ireland on the 14th and 15th, and the reading 28.02 appears in the late evening radio report of the 15th from an unidentified vessel near 55° N., 15° W. The report by mail of the American liner *Black Hawk*, 2 p. m. of the 14th, near 50° N., 20° W., shows 28.15 inches. A press clipping indicates that the German liner *New York*, from Cobh toward New York, when off the Irish coast on the 15th, noted pressure of 27.7 inches.

Cyclones and gales.—The month was unusually stormy; vessel reports so far received include 18 instances of force-12 winds and 20 of force 11. The accompanying table of ocean gales and storms does not include all of the force-11 encounters. There were periods of much less storminess over the most traversed parts of the ocean, particularly the 9th to 13th, and the 27th to 29th. The 14th to 22d was the most turbulent period.